401 KAR 59:010. New process operations.

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
Department for Environmental Protection
Division for Air Quality

Relates to: KRS 224.20-100, 224.20-110, 224.20-120
Pursuant to: KRS 224.10-100
Necessity and Function: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to prescribe regulations for the prevention, abatement, and control of air pollution. This regulation provides for the control of emissions from new process operations which are not subject to another particulate standard within this chapter.

Section 1. Applicability.

(1) The provisions of this regulation shall apply to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates in this chapter, commenced on or after the classification date defined below.

(2) The provisions of this regulation which apply to affected facilities or sources located in non-attainment areas shall continue to apply to those affected facilities or sources if the area is redesignated to attainment or unclassified status in 401 KAR 51:010 or 40 CFR 81.318, unless a State Implementation Plan which provides for other controls is approved by the U.S. EPA.

Section 2. Definitions.
As used in this regulation, all terms not defined herein shall have the meaning given them in 401 KAR 50:010.

(1) "Process operation" means any method, form, action, operation, or treatment of manufacturing or processing, and shall include any storage or handling of materials or products, before, during, or after manufacturing or processing.

(2) "Process weight" means the total weight of all materials introduced into any affected facility which may cause any emission of particulate matter, but does not include liquid and gaseous fuels charged, combustion air, or uncombined water.

(3) "Process weight rate" means a rate established as follows:
  (a) For continuous or long-run steady state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

  (b) For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

  (c) Where the nature of any process operation or the design of any equipment is such as to permit more than one (1) interpretation of this definition, the interpretation which results in the minimum value for allowable emission shall apply.

(4) "Affected facility" as related to process operations means the last operation preceding the emission of air contaminants which results:
  (a) In the separation of the air contaminant from the process materials; or

(b) In the conversion of the process materials into air contaminants, but does not include an air pollution abatement operation.

(5) "Classification date" means July 2, 1975.

(6) "Continuous emission" means a visible emission of particulate matter which persists for more than three (3) minutes, the opacity of which is measured in accordance with Reference Method 9, filed by reference in 401 KAR 50:015.

(7) "Intermittent emission" means a visible emission of particulate matter which persists for three (3) minutes or less, the opacity of which is measured in accordance with Kentucky Method 150 (F-1), filed by reference in 401 KAR 50:015.

Section 3. Standard for Particulate Matter.

(1) Opacity standard.

(a) No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

(b) No person shall cause, suffer, allow, or permit any continuous or intermittent fugitive emission into the open air from any affected facility or source located in any area designated non-attainment for total suspended particulates under 401 KAR 51:010 which is equal to or greater than twenty (20) percent opacity, or which remains visible beyond the line of the property on which the emission originates.

(c) For sources commenced on or after the classification date of this regulation, but before September 4, 1986, variation with the standards specified in paragraph (b) of this subsection, when supported by adequate technical information, will be considered by the cabinet on a case-by-case basis to allow for technical or economic circumstances which are unique to a source, provided that such a variance has been approved by the U.S. EPA.

(2) Mass emission standard. For emissions from a control device or stack no person shall cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A to this regulation.

Section 4. Test Methods and Procedures.

Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with Section 3 of this regulation shall be conducted according to the following methods. Kentucky Methods 50 and 150(F-1) and other methods are filed by reference in 401 KAR 50:015.

(1) For sources located in or having significant impact upon areas designated non-attainment for total suspended particulates under 401 KAR 51:010, Kentucky Method 50 for the emission rates of particulate matter and the associated moisture content. In all other Reference Method 5 shall be used.

(2) Reference Method 1 for sample and velocity traverses.

(3) Reference Method 2 for velocity and volumetric flow rate.

(4) Reference Method 3 for gas analysis.

(5) Reference Method 9 for opacity of continuous emissions

(6) Kentucky Method 150(F-1) for opacity of intermittent emissions.

(7) For Kentucky Method 50, or Reference Method 5, Reference Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 0.85 dscm (thirty (30) dscf) except that smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the cabinet.

Effective date: April 14, 1988

	Date Submitted to EPA	Date Approved by EPA	Federal Register
Original Reg	JUN 29, 1979	DEC 24, 1980	45 FR 84999
1st Revision	DEC 09, 1982	DEC 04, 1986	51 FR 43472
3rd Revision	SEP 19, 1986	MAY 04, 1989	54 FR 19169
4th Revision	JUL 07, 1988	FEB 07, 1990	55 FR 4169

APPENDIX A TO 401 KAR 59:010
ALLOWABLE RATE OF PARTICULATE EMISSION
BASED ON PROCESS WEIGHT RATE

Process Weight Rate		Maximum Allowable Emission Rate
Lb/Hr.	Ton/Hr.	Lb/Hr
1,000 or less	0.50 or less	2.34
1,500	0.75	3.00
2,000	1.00	3.59
2,500	1.25	4.12
3,000	1.50	4.62
3,500	1.75	5.08
4,000	2.00	5.52
5,000	2.50	6.34
6,000	3.00	7.09
7,000	3.50	7.81
8,000	4.00	8.48
9,000	4.50	9.12
10,000	5.00	9.74
12,000	6.00	10.90
16,000	8.00	13.03
18,000	9.00	14.02
20,000	10.00	14.97
30,000	15.00	19.24
40,000	20.00	23.00
50,000	25.00	26.41
60,000	30.00	29.57
70,000	35.00	30.57
80,000	40.00	31.23
90,000	45.00	31.83
100,000	50.00	32.37
120,000	60.00	33.33
140,000	70.00	34.16
160,000	80.00	34.90
200,000	100.00	36.17
1,000,000	500.00	46.79
2,000,000	1,000.00	52.28
6,000,000	3,000.00	62.32

Interpolation of the data for process weight rates up to 60,000 lb/hr. shall be accomplished by use of the equation $E=3.59P^{0.62}$, and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lb/hr. shall be accomplished by the use of the equation $E=17.31\ P^{0.16}$, where E = rate of emission in lb/hr and P=process weight in tons/hr.